Fabrication of metallic nanostructures with ions

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Stellingen

Behorende bij het proefschrift

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door

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1. Micro-sized metallic cantilevers can be folded in a controlled fashion by appropriate ion irradiation.

2. The generation of isolated point defects and deposition of Ga from the ion beam using FIB cannot explain the bending phenomenon.

3. Ion-induced bending of nanoporous gold cantilevers occurs at a higher rate per fluence than solid gold cantilevers and is governed by densification of the irradiated surface region.

4. The effective elastic modulus of a nanoporous structure is defined by the network connectivity, with a non-monotonic dependence on average ligament size.

5. The consideration of nanoporous materials for radiation-resistant, e.g. nuclear applications must take into account the dimensional instability resulting from radiation-induced coarsening and/or sintering.

6. It is much easier to do measurements than to know what you are measuring. (Jeff Th.M. DeHosson)

7. O estranho é que o cérebro, feito essencialmente para produzir ideias, exulta quando tem uma. (Millôr Fernandes)

8. Scire tuum nihil est, nisi te scire hoc sciat alter (Aulus Persius Flaccus)

9. History of science shows the second-order phase transformation of scientists from truth-arbiters to gold-diggers.

10. When reading simulation studies, one must always inquire whether it is a fantastic paper or a fantasy paper. (Jeff Th.M. DeHosson)